DOCUMENT RESUME

ED 112 794 HE 006 823

AUTHOR Fife, Jonathan D.
TITLE The College Student Grant Study.
INSTITUTION Pennsylvania State Univ., University Park. Center for the Study of Higher Education.
PUB DATE May 75
NOTE 53p.
AVAILABLE FROM Center for the Study of Higher Education, The Pennsylvania State University, University Park, Pennsylvania 16802 (Free)

EDRS PRICE MF-$0.76 HC-$3.32 Plus Postage
DESCRIPTORS Economically Disadvantaged; Educational Finance; *Equalization Aid; Expenditure Per Student; Financial Policy; Financial Support; Foundation Programs; *Higher Education; Policy Formation; *Scholarship Loans; State Aid; Student Costs; *Student Loan Programs; Surveys; *Tuition Grants
IDENTIFIERS *Basic Opportunity Grants

ABSTRACT

The validity of the basic assumptions underlying student grant programs is examined; namely, whether student aid increases access to postsecondary education for low income groups, whether student aid promotes student choice, and whether financing higher education through students greatly aids private institutions. The major conclusions of the study are that scholarship and grant aid do promote equal educational opportunity, and that with equalization of public-private tuition levels through the aid grants, students will favor private institutions in large numbers. Three major failings of state scholarship programs are identified: (1) lack of consideration of all education-related expanses; (2) unrealistic expectations regarding student contributions to educational costs; and (3) failure to adjust income levels indicating disadvantagement. It is concluded that the use of scholarship and grant aid as a mode of financing higher education is on the increase, but that there needs to be more data before the true impact of such programs as the Basic Opportunity Grants can be determined. Further research concerning other types of direct student aid, such as loans, and for longitudinal studies, is advocated. (LBH)

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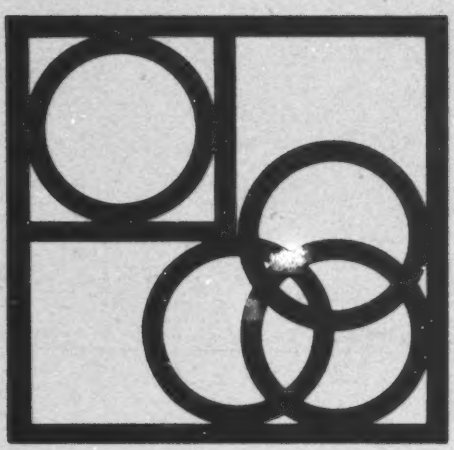
The College Student Grant Study

Jonathan D. Fife



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Center for the Study of
Higher Education

The Pennsylvania State University

The College Student Grant Study

Jonathan D. Fife

Center for the Study of
Higher Education
The Pennsylvania State University
University Park, Pennsylvania

May 1975

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FOREWORD

The study reported in this monograph was sponsored by the Center for the Study of Higher Education. It was jointly conducted by me and served as the basis for the author's doctoral dissertation.

Since 1969, when the Joint Economic Committee of Congress issued its report on the financing of higher education, a plethora of reports have been issued on this important topic by such national groups as the Carnegie Commission, the Committee for Economic Development, and the National Commission on the Financing of Postsecondary Education. Having served on several of the related task forces of these groups, it has been clear to me that many of the conclusions and recommendations of these reports lack empirical support.

This study goes a considerable distance in filling important gaps in the related data bases, as it addresses several of the more important conclusions in the financing literature; namely, whether student aid increases access to postsecondary education for low income groups, whether student aid promotes student choice, and whether financing higher education through students greatly aids private institutions.

This study shows that whereas access for the lowest income and status group is little improved, access is enhanced significantly for the next higher group. The study also shows that student aid promotes choice for many students. It also allays the fear of the public sector by showing that while the private institutions do gain enrollments, the public institutions do not lose. Enough new students enter the system to raise enrollments in both sectors although the percentage gain by the private sector is greater.

The best evidence of the worth of a study of this kind is in its use in policy making. The data and findings have been used by several national groups such as the Stanford Research Institute, one of two policy research centers of HEW, and the National Commission on the Financing of Postsecondary Education. Presentations of the study have been solicited by numerous national organizations for their national conferences, and aspects of the study have been published in several professional journals.

The Center is pleased to have been able to sponsor this research as a means of contributing empirical evidence for policy development in higher education.

Larry L. Leslie
University Park, Pa.
Spring 1975

ACKNOWLEDGMENTS

For a multistate, multiprogram study to be successful, the cooperation and support of many people and their organizations are necessary. The completion of this study is the result of the combined efforts of many people involved in the development, implementation, and research of state scholarship and grant programs. The author gratefully acknowledges the openness and guidance of Dr. Joseph D. Boyd, Executive Director of the Illinois State Scholarship Commission. His sharing of published and unpublished data from two studies of Illinois state scholarship recipients was critical in the initial development of this study.

Also, without the cooperation of the individual state scholarship and grants commissions this study would not have been possible. The author would like to publicly thank Dr. Sherman N. Tinkelman, Assistant Commissioner for Examinations and Scholarships, Regents Examination and Scholarship Center, New York; Dr. Elizabeth L. Earhart, Director, New Jersey State Scholarship Commission; Dr. Kenneth R. Reeher, Executive Director, and Mr. Earl R. Fielder, Chief, Research and Plans, Pennsylvania Higher Education Assistance Agency; and Dr. Arthur S. Marmaduke, Director, California State Scholarship and Loan Commission, for their assistance in helping identify and survey the recipients of the individual state scholarship and grant programs.

The author would also like to express his appreciation to the Center for the Study of Higher Education at The Pennsylvania State University for sponsoring this study and providing the support staff and the data processing facilities needed to analyze the massive amount of data collected.

Finally, it should be noted that the credit for the contributions that this study makes toward further understanding of the impact of scholarship and grant programs on students belongs to the co-director of this study and the author's doctoral dissertation advisor,

Dr. Larry L. Leslie, The author, however, assumes all responsibility for the limitations and oversights of this report.

Jonathan D. Fife
Associate Director
ERIC Clearinghouse on Higher Education
The George Washington University
Winter 1975

1/OVERVIEW

During the academic year 1972–73 the Center for the Study of Higher Education at The Pennsylvania State University sponsored a survey of scholarship and grant recipients in New York, New Jersey, Pennsylvania, and California. Considering that more than $456 million of state funds and more than 62 percent of the total federal higher education budget are being directed toward student aid programs, a great deal more information concerning the impact that this mode of funding had on higher education seemed necessary. This survey, entitled the *College Student Grant Study*, was designed to examine the question of whether state scholarship and grant programs are effective in achieving the goal of equal educational opportunity and noticeably expand the type of institutions available to a student.

With the cooperation of the state scholarship commissions, the first-time aid recipients of the following scholarship programs were randomly selected and surveyed: New York Scholar Incentive Award Program, New Jersey Scholarship Program, New Jersey Tuition Aid Grant Program, Pennsylvania Scholarship Program, and California Scholarship Program. After receiving between 67 and 89 responses the questionnaires were coded and analyzed according to the recipients' educational resources expenses, socioeconomic status, college attendance pattern, and perceived impact of scholarship aid.

The highlights of the findings of this survey are as follows:

Equal Educational Opportunity

Access

- Eighty-five percent of the aid recipients either waited to hear if they were going to receive aid or had anticipated receiving aid when making their college selection.
- Fifty percent of all students receiving aid from three out of the five programs surveyed indicated that without aid they would not have been able to attend a postsecondary institution.
- With the exception of the semiskilled and unskilled workers, students from this blue-collar stratum as a whole equaled or exceeded that occupational level's makeup in the general population and far exceeded the national norm in the general college population.

- The mean family income of aid recipients is significantly below the national mean income of families whose male head of household is between the ages of 45 and 55.
- In four out of the five programs, more females were awarded aid than males, and all aid programs had a higher percentage of female award recipients than the percentage of females attending college as a whole.

Choice

- Between 68 and 88 percent of the aid recipients indicated that they were able to attend their first choice school.
- The percentage of aid recipients attending private institutions equaled or exceeded the state norm for all students attending a postsecondary institution.
- A greater percentage of aid recipients attended universities than was represented by all college students in each state.
- Student aid allows more than 80 percent of the recipients to attend the institution they perceive best fulfills their educational needs (i.e., their first choice school).

Changes in Students' Attendance Patterns

- Aid programs induce the same or greater percentage of students to attend a private institution as they do a public institution.
- While community colleges gained slightly more students from aid programs, they gained considerably fewer new students than the other institutional levels.
- In three out of the four states surveyed, four-year institutions gained between 15 and 37 percent more new students than two-year institutions.
- Institutions with enrollment below 2,500 were more likely to receive new students due to scholarship aid than larger institutions.

2/STUDENT SCHOLARSHIP AND GRANT AID

Recent Change in Student Aid: Delivery System and Amount

The role that student scholarship and grant aid has played in the financing of higher education has changed dramatically over the past three decades. This change can be attributed to two factors. First, the delivery system of student aid has changed from an institutional to a noninstitutional base. Prior to World War II most scholarship and grant programs were made available through the individual higher education institutions and supported by institutional funds. However, since World War II more and more student aid has been underwritten by the state and federal government. Second, due to this change in delivery systems the amount of funds available for student aid programs has grown rapidly.

These two changes are evidenced in the basic data on student aid programs. During the last 30 years, student aid expenditures have increased from 10 percent to 14 percent of the net operating cost for private institutions and from 4 percent to 8 percent for public institutions. In the same period of time, scholarship and grant aid as a portion of the gross tuition income has increased from 14 percent to 21 percent for private institutions and from 18 percent to 34 percent for public institutions (Carnegie Commission 1973a, p. 56).

During the last decade, student aid available from the states has increased dramatically. In the early 1960s only eight states had scholarship programs; by 1974, 39 states had scholarship programs. In the past five years the amount of money made available through state student aid programs and the number of students being aided by these programs have increased noticeably. In 1969, $220 million was appropriated for state scholarship and grant programs; in 1974 the figure reached $456 million, an increase of 128 percent. In the same period of time, the number of students receiving awards had increased from 470,000 students to nearly 800,000 students (Boyd 1971, 1974).

While the federal government did not begin to establish student aid programs until after World War II, the federal government now has become the single largest source of student assistance programs. In 1962 federal student assistance programs and scholarships equaled $332 million or 27 percent of the total federal aid to higher

education. By 1974 the amount had grown to 3.7 billion dollars or 62 percent of the total federal aid to higher education (Grant and Lind 1974, p. 124).

Even more significant than the current programs being funded at the state and federal levels are the programs authorized in the 1972 Education Amendments (P.L.92-318). This act authorizes two new, non-institutional based aid programs. The first, the State Student Incentive Grant (SSIG) Program is a matching award program designed to encourage states to increase their appropriations for college student need-based grant programs. The second program is the Basic Educational Opportunity Grants (BEOG). These grants entitle college students to a maximum of $1,400, or up to 50 percent of the student's cost of education minus family contribution. While the appropriation for the BEOG for fiscal year 1975 is only $660 million and only $20 million is appropriated for the State Student Incentive Grants, the implications of these programs are enormous. It has been estimated that for FY 1977 these two student aid programs will have a budget of over $1 billion, and that for full funding more than 1.3 billion will need to be appropriated.

Changes in Aid Linked to Change in Purpose of Aid

Past Purpose: Sponsor the Elite

The reason for these changes in the delivery system and the amount of funds available for student aid programs is a general change in the purpose of student aid programs. Originally, student aid programs were designed to benefit the institution as much as they benefited the student.

Up until the last decade scholarship aid was used to attract students with special talents, that is, students who showed superior academic, athletic, or artistic potential (Chambers 1968). In this way, a school could build a reputation of having superior students which, in turn, would encourage other bright students to apply. This use of scholarship aid was designed to help establish an elite group of students in higher education. This use of student aid existed even as late as the early 1960s when half of the available scholarship funds were concentrated in 50 institutions and the scholarship recipients were students from families with above average income who had a high score on aptitude achievement tests (Holland and Kent 1960).

Fill Enrollment Quotas. A second purpose for institutionally based scholarship and grant programs has been to fill enrollment quotas. Institutions discovered that they could offer students minimal scholarships and attract them away from institutions which offered them no form of aid. This small investment of scholarship funds would attract additional students who would pay the major portion of their educational expenses. In a sense, this practice, which was popular in times of excess capacity and under-utilization of college facilities, was a form of discounting the cost of higher education.

Present Purpose: Promote Social Goals

Promote Equal Educational Opportunity. During the 1960s student aid was gradually seen by state and federal governments as a mechanism to promote specific social goals. The first and most prominent social goal promoted by increasing student scholarship and grant aid was equal educational opportunity. As summarized by the Carnegie Commission on Higher Education:

> Equality of opportunity has long been promised to all our citizens. Increasingly, such equality means equality of opportunity to obtain a college education ("Full text of . . ." December 13, 1971, p. 6).

This emphasis on scholarships, grants, and loans as means of promoting equal educational opportunity for the disadvantaged has been supported over the last three decades by the major study commissions (Trivett 1973). The Task Force on Student Assistance of the Education Commission of the States has ascertained that: "A major responsibility of the government, state, local, or federal, is to provide educational opportunity for its citizens in accordance with their ability, motivations, and needs of society" (1970, p.1).

The increased pressure for student scholarship and grant aid has resulted from a belief that the basic goal of equal educational opportunity is more effectively achieved through this mode of funding than other alternative modes of funding. It is believed that direct distribution of funds to students according to financial need more forcefully persuades the financially disadvantaged to pursue an education (Bowen 1970; Carnegie Commission 1972b; Keeton 1971; O'Hearne 1970; Pearson 1967). This type of aid to students is thought to be more efficient than low tuition because low tuition benefits the wealthy as well as the poor. The existence of these benefits is supported by

data that a disproportionate number of students attending state institutions come from middle and upper income families. Some studies demonstrate that a low tuition policy actually takes more from the lower income group than it returns and provides more lifetime economic gain for the upper income group (Hansen and Weisbrod 1969; Windham 1970). Others have challenged this conclusion (Pechman 1970).

For the most part, students from relatively affluent families (more than $15,000 annual income) are attending institutions of higher education regardless of race or background, while financially disadvantaged students cannot even afford low tuition institutions (Branson 1970). However, some maintain even direct aid would not greatly increase the attendance of the financially disadvantaged due to their attitudinal and cultural deficiencies (Milner 1972). Others suggest that with the exception of the most distinctive colleges, which attract students on the basis of reputation, the main factor influencing access is the cost of higher education (Anderson et al. 1972).

Equal Educational Opportunity = Equal Access + Reasonable Choice. For student aid programs to help achieve equal educational opportunity they must promote equal access and reasonable choice of institution, these being the main objectives for postsecondary education. As stated by the National Commission on the Financing of Postsecondary Education:

> All who are capable of benefiting should be assured access to postsecondary education in some form. There must be no arbitrary or artificial barriers related to sex, age, race, income, residence, ethnic group, religious or political belief, or prior educational achievement (1973, p. 55).

They further state that:

> Choice is closely related to access. Each person should be assured a real choice among the institutions that have accepted him or her for admission. To deny such choice would be to restrict access. To the extent that choice depends upon financial aid, reasonable student financial assistance must be available from public and private sources in some combination of grants, loans and employment and personal savings and parental contribution (pp. 55–56).

These objectives for student aid programs have also been articulated by Joseph Boyd, Executive Director of the Illinois State Scholarship Commission:

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> A common thread in all developments [of state scholarship and grant programs] is to provide dollars to permit the financially needy student to attend the college of his choice without designating a specific vocational future . . . . state programs not only permit college going to those who might not be financially able to attend, but also significantly affect college choice. Freedom of choice and preservation of diversity in higher education have motivated the large and comprehensive state programs (1969 pp. 5-6).

Stimulate the Academic Marketplace. The second reason most articulated by legislators for the support of scholarship and grant aid is that this type of aid is an effective mechanism to stimulate the academic marketplace. Besides allowing equal access and reasonable choice, the power of the student dollar would support those institutions giving the most return on the investment. To attract a student, the institution would have to demonstrate its ability to meet the student's educational need. Thus, to be competitive, an institution would have to become accountable and responsive to its academic program as well as more concerned with costs and managerial efficiency (Krughoff 1969; Owens 1970; Roose 1970; Wiseman 1969). Thus, some argue that direct student aid stimulates the academic marketplace. Others argue that this competitive aspect of the scholarship and grant system does not exist in reality because of the various noneconomic factors that affect a student's educational decisions. The reasons for this have been summed up by Leslie and Johnson (1974):

> The market-related characteristics of higher education neither correspond to, nor are consistent with, the sufficient conditions or assumptions describing and leading to a perfectly competitive marketplace. Nor do they approximate the requirements of the model. Indeed higher education can be characterized as a situation where: (1) nonpriced, limited competition for student and faculty exists; (2) prices are individually determined by institutions and state-wide systems of institutions without significant attention to market conditions; (3) the compensation and distribution of enrollment space is determined unilaterally by institutions; and (4) the internal allocation of institutional resources takes place largely independent of market forces. Not only does this incongruity between higher education and the model suggest that the perfectly competitive market model is inappropriate and inadequate as a descriptor of higher education, but it also calls into question the potential and probable

effect of any single new mode of financing higher education (i.e., the student grant) (p. 15).

The belief that scholarship and grant aid will stimulate the marketplace has been expressed by officials of the Department of Health, Education, and Welfare as the major reason for supporting this type of funding. The following citation from "Student Assistance," one of the MEGA documents left by the then Secretary of HEW, Elliot Richardson, for the incoming Secretary, Casper Weinberger, illustrates this rationale:

> The fundamental premise of this paper is that freer play of the market forces will best achieve federal objectives of postsecondary education. . . . Accordingly, this paper describes what we should do to give individuals a greater power of choice in the education marketplace and proposes levels and types of student support which will make most institutional aid programs unnecessary (1972, p. 1).

Another planning paper of the Office of Education notes that with all federal student aid made fully portable and with a significant shift in state funding to student aid, "the influence of market forces [will] become more pronounced" (Beckler 1973, p. 18).

Preserve Diversity of Higher Education. This state and federal support for scholarship and grant aid also preserves the diversity of higher education. By not restricting the type of institution a grant recipient may attend, state and federal funds are allowed to flow to the private sector of higher education. In this way, the delicate constitutional question of public funds supporting private institutions—especially private, church-related institutions—is avoided. In this manner public funds are used to help support the private sector and thereby help to increase the financial stability of this sector.

3/THE COLLEGE STUDENT GRANT STUDY

Research Questions

The precedent for state and federal aid to institutions of higher education through students has been firmly established. This increasing emphasis placed on indirect financing for scholarships and grants raises some very basic questions. What is the specific impact of this mode of financing? Is the theory of "marketplace economics" applicable to education? What do we really know about the impact of scholarships and grants on students and their choice of institutions? To what extent has the degree of funding of state aid programs allowed the states to achieve their articulated objectives?

The actual research in this area is relatively sparse. No substantial research has been conducted on the effects of federal aid programs, although some efforts are now under way. The Illinois State Scholarship Programs have been surveyed several times, once by W. J. Sandness (1966) and in 1968, 1971, and 1974 by the Illinois State Scholarship Commission (Boyd and Fenske 1969; Fenske and Boyd 1971). But except for the Illinois study, no widely disseminated study in the last 10 years has considered the impact of financial aid on attendance decisions.

With the passage of the 1972 Amendments to the Higher Education Act of 1965 and the creation of the Basic Educational Opportunity Grants, it is imperative to gain more knowledge about the impact of direct aid to students. It seems almost ludicrous that billions of tax dollars will soon be funneled into institutions via students without knowing what the impact might be. For this reason the Center for the Study of Higher Education of The Pennsylvania State University conducted a survey during the academic year 1972-73 of first-time recipients of New York State Scholarship Incentive Awards, New Jersey Scholarships and Tuition Aid Grants, California State Scholarships, and Pennsylvania State Scholarships. The purpose of this survey was to attempt to find answers to the following basic questions:

1. Do the students' basic demographic variables significantly account for varying impacts of the aid on students?
2. Does aid facilitate the recipients' ability to attend their first choice institution?

3. How do recipients perceive their ability to continue their education without aid?
4. What are the attendance patterns of aid recipients?
5. Do aid programs promote geographic mobility?
6. What is the actual breakdown of the recipients' educational costs?
7. What sources of income do the students use to meet their educational expenses?

Selection of the Sample

Since the major objective of this study was to develop a survey that would provide some insight into what impact scholarships and grants had on a student's college decisions, scholarship recipients themselves had to be surveyed since no existing source of data combined the information needed. Data that were already available from existing financial aid applications were inadequate because they failed to integrate the demographic and financial information with the student's perception of aid impact.

Of all the scholarship and grant programs available, the state scholarship programs appeared to be the best data source since they sponsored the largest programs. However it was quickly observed that no state had a satisfactory representative program from which adequate generalizations could be made. Each program had a variety of idiosyncratic regulations that set it apart from the other programs. Factors such as the maximum level of aid allowed per student, restrictions on the type of school that recipients could attend, geographic requirements, and whether the program was purely need-based or had some academic qualification for acceptance prohibited selecting any one state program. In addition to these programs, states from various sections of the country have traditions, especially traditions concerning public and private education, that would affect a student's decision. All these factors indicated that more than one state would have to be surveyed.

Upon examining available programs sponsored by the various states, five states were selected to be surveyed. These states were New York, Pennsylvania, New Jersey, California, and Illinois. In 1972-73, these states had the largest student aid programs out of the 23 states sponsoring such programs, offering $234,962,652 in aid to students, or

75.2 percent of all aid offered by all the states. That year, these programs served 511,053 students, which equaled 78.3 percent of all student aid recipients (Boyd 1973, pp. 1-3).

Early investigations revealed that Joseph D. Boyd and Robert H. Fenske had already conducted a survey of the Illinois State Scholarship and Grant Programs (1969). Therefore the states surveyed in this study were New York, Pennsylvania, New Jersey and California. The total amount of aid awarded by these states equaled 59.8 percent of all state-sponsored scholarship and grant programs, and the number of student recipients equaled 67.9 percent of all students enrolled in the state programs (Boyd 1973). The largest competitive and noncompetitive programs were then selected from these states. The noncompetitive grant programs selected were the New York State Scholarship Incentive Award Programs, New Jersey Tuition Aid Grant Programs (TAG), and the Pennsylvania Commonwealth Scholarship Program (see Table 1). These three programs equaled 52 percent of the noncompetitive scholarship programs offered by the states. The competitive-based programs selected were the New Jersey Scholarship Program and the California State Scholarship Program. These programs combined to equal 30 percent of all state competitive scholarship programs.

At this point it should be noted that the terms "scholarship" and "grant" are not precisely and universally defined. For this study,

TABLE 1

NUMBER OF AWARDS, TOTAL AMOUNT AWARDED, AND AVERAGE AWARD OF THE STUDENT AID PROGRAMS SURVEYED 1972-1973

Aid Program	Number of Awards	Total ($)
California State Scholarship	23,090	23,406,305
New Jersey State Scholarship	16,130	7,088,067
New Jersey Tuition Aid Grant	5,100	3,570,000
Pennsylvania State Scholarship	99,966	58,832,049
New York Scholar Incentive Award	209,300	45,400,000
Total	353,586	138,296,421

SOURCE: Joseph D. Boyd, *1973-74 Undergraduate Comprehensive State Scholarship/Grant Programs* (Deerfield: Illinois State Scholarship Commission, October 1973), pp. 1-2.

the term *scholarship*, when used other than in the formal title of the program, will refer to aid programs that have both an academic and a financial need standard for qualification. The term *grant* will be used to refer to programs based solely on the financial need of the students. California Scholarship Programs and the New Jersey Scholarship Program are classified as scholarship programs. The New Jersey Tuition Aid Grant Program, the Pennsylvania Scholarship Program, and the New York Scholar Incentive Award Program are classified as grant programs (see Table 2).

TABLE 2
CHARACTERISTICS OF STATE STUDENT AID PROGRAMS SURVEYED 1972-1973

Program Characteristic	Calif. Scholar.	New Jersey Scholar.	New Jersey Tuition Aid	Penna. Scholar.	New York Scholar. Incentive
Competitive or need based?	Compet.	Compet.	Need	Need	Need
Part-time students eligible?	No	No	No	No	No
Out-of-state schools eligible?	No	Yes	No	Yes	No
Only for undergraduates?	Yes	Yes	Yes	Yes	No
Limited to tuition and fees?	Yes	Yes	Yes	Yes	Tuition only
For-profit schools eligible?	No	No	No	Yes	Yes
Two-year colleges eligible?	Priv. only	No	Yes	Yes	Yes
Awards usable at public/private/both?	Both	Both	Priv.	Both	Both
Awards at fixed level/ increments/which level/max. award amounts?	Yes; $100 incr; $2200 pri $600 UC $160 SC	No; $500 max.	Yes; $100 per sem. $200./ yr. $1000 max.	No; max. $1,200 Pa. $800 out-of-state	Yes; $100 incr. to $300; $600 max.
First-year award made?	1956-57	1959-60	1968-69	1965-66	1961-62
Amount expected from self-help?	Men $700 Wom $600	¼ college budget	None	None	$200 of tuition

SOURCE: Joseph D. Boyd, *1973-74 Undergraduate Comprehensive State Scholarship/Grant Programs* (Deerfield: Illinois State Scholarship Commission, October 1973), p. 4.

From these state scholarship and grant programs a random sample of 1,000 recipients in California and New York and 500 recipients from the two programs in New Jersey and in Pennsylvania were selected. Between 1972 and 1973 these recipients were surveyed by a one-page questionnaire. Using systematic follow-up and cover letters carrying the state scholarship letterhead (with the exception of the New York recipients), the following response rate was achieved: New Jersey State Scholarship, 89 percent; New Jersey Tuition Aid Grant, 72 percent; California State Scholarship, 82 percent; Pennsylvania State Scholarship, 82 percent; and New York Scholar Incentive Award recipients, 67 percent. Because of the low response rate from New York a follow-up was conducted on the nonrespondents. No significant differences between respondents and nonrespondents were found.

Data Analysis

Generally, the coding of the questionnaire was rather straightforward and no interpretation was needed. Exceptions to this were in the coding of father's occupation and categorization of institutions. Since income and occupation are the best indicators of socioeconomic status (Reiss 1961; Hall 1969; Lipset and Bendix 1959), the father's occupation was used as part of the indicator for social mobility and for fulfillment of equal educational opportunity. For New York, New Jersey, and California, father's occupation was coded according to a hierarchy developed by the National Merit Scholarship Commission. It was anticipated that this code would also be used for the Pennsylvania recipients with the information being obtained from the student's original application for aid. However, after the survey of the Pennsylvania Aid recipients was concluded, it was determined that the necessary information was not available through the Commission; therefore, only a rough determination of SES by father's occupation was available for these students.

Because it was thought that the students might have difficulty in identifying certain characteristics of the school they were attending, would like to have attended, or would have attended without aid, they were asked only to give the name of the school. The coding of the schools was broken down into four categories: (1) control: private or public; (2) level: university, four-year college, two-year college, or

other; (3) size; and (4) location: in-state, in a local and a bordering state, or in another state.

Analysis of the students' responses was conducted in three stages. Means were computed from the demographic variables (sex, marital status, veteran's status, high school grade-point average, family income by rank, father's major lifetime occupation, educational costs, and financial resources) and from responses to the impact questions. An analysis of variance was conducted to detect the differences in the student's educational costs and financial resources when considered by family income and father's major lifetime occupation. Where significant values were less than chance ($p < .05$), a follow-up analysis was conducted in order to determine sources of significant differences. Chi-square analysis was used to detect differences on the basis of demographic variables between attendance patterns: school attended with aid compared to first choice school, and the school attended with aid compared to school the recipient would attend without aid. Also in the chi-square analysis, the amount of the student's scholarship, a ratio of the amount of scholarship to family income, and a ratio of the amount of scholarship to total educational expenses were used in analyzing the impact questions.

4/SURVEY FINDINGS

It should be pointed out before the discussion of the findings of the College Student Grant Study that because of the idiosyncratic nature of each program surveyed they should not be compared. Factors such as the maximum award allowed, competitive and need-based analysis, and other aspects of individual aid programs, along with the general characteristics of the higher education milieu in each state make comparative judgments improper. However, by examining all programs, general indications are derived concerning how well scholarship and grant programs achieve certain objectives.

As was mentioned in Chapter 2 the achievement of educational opportunity requires access and choice. An increase in student access by allowing those students to attend an institution of higher education who, without aid, might not be able to do so is not enough; scholarship and grant aid must also allow the student the freedom to reasonably choose a college he feels will best meet his educational needs.

Access

Award of Aid as a Factor in Attendance. One indicator of whether scholarship and grant aid is promoting equal educational opportunity is the degree that students perceive student aid as a factor in their ability to attend an institution of higher education. Students were asked if they knew they would be receiving aid before they selected their institution. This question was asked to determine whether a student had prior knowledge of aid when he decided to attend the institution. The announcement dates of a majority of aid programs indicate that most of the students would have to commit themselves to an institution before they received final notice of their awards. Only in New York did most students know that acceptance by a New York institution would automatically mean aid. Even under these conditions a range of 16.7 to 34.7 percent of recipients (excluding New York recipients) indicated that they waited to hear they had received aid before they selected their school.

Because it was anticipated that the award announcement data or program regulations might make it impossible for a student to wait

to hear if he had received aid before he selected his school, the recipients were asked if anticipation of grant aid was an important factor in selecting their school. Of the students who did not know they would be receiving aid before they selected their institutions, more than 80 percent indicated that they were "counting on" aid when they selected their school.

The responses to these two questions indicate that in the five programs surveyed, 85 percent of the recipients either knew they were going to receive aid before they made their selection or anticipated receiving aid when they made their selection. In short, only 8.3 to 16.3 percent of the aid recipients did not feel that the award played a part in their college selection.

Number of New Students Entering. A more important indicator of how well scholarship and grant programs are promoting equal access is the number of new students who are attending an institution of higher education who would not have done so without some form of aid. To get at this question, the aid recipients were asked if they would continue to attend college if they were not receiving a state scholarship or grant. It was believed that a response to this question would provide some insight into the student's perception of the importance that the scholarship and grant had on his ability to attend a postsecondary institution.

Responses from the aid recipients of three programs—the New Jersey Scholarship, New Jersey Tuition Aid Grant, and the Pennsylvania Scholarship—indicate that 50 percent of all the students receiving aid from these programs felt that they would not be attending a postsecondary institution if they had not received student aid. While these perceptions might have been contradicted in reality, these data indicate the importance that students believe aid played in their opportunity to go to college.

The recipients from the two other aid programs—California Scholarship and New York Scholar Incentive Award Program—indicated by a larger percentage that they would be able to attend college without their state aid. However, these responses tend to be biased by the conditions within each state. California aid recipients also have access to the very large, free tuition community college system. For these students another form of postsecondary education is a viable alternative to failure to receive state aid. In New York, the individual awards

granted were so small (mean award $203) that the award probably would not influence a student's attendance decision.

An analysis of the responses from the New Jersey and Pennsylvania recipients shows that those students who are receiving more than $450 in aid were much more inclined to indicate aid as critical in their ability to attend college. Also, these students tend to come from families of low socioeconomic status (SES). The important point to be concluded from these data is that when aid is of more than a token amount, it is perceived by students of low SES to be a critical element in their decision to continue their education. For many this aid was the major factor in their decision to attend college.

SES of Aid Recipients vs. SES of Other Students. Another analysis that can be used to see if scholarship and grant aid is helping to achieve the goals of equal educational opportunity is to compare the socioeconomic status (SES) of aid recipients with the SES of all students attending higher education institutions. One of the major indicators of SES is the occupation of student's father (see Table 3).

Our data show that the scholarship and grant program aided a greater percentage of students whose fathers are employed in lower status occupations than are represented in the national norm. For example, all programs exceed the ACE 1972 freshman norm of 12 percent for skilled occupations. The New York Scholar Incentive Award Program granted 37.1 percent and the California Scholarship Program 24.7 percent of their awards to students whose fathers were included in this occupation level.

Because of the idiosyncratic nature of each state, a better way of examining the breakdown of the occupations of these recipients' fathers is to compare them with the general occupational breakdown within each state. Here it is observed that awards granted to students from the blue-collar occupational level (personnel services; protective services; skilled, semiskilled, and unskilled workers) as a whole equal or exceed that occupational level's makeup in the general population and far exceed the national norm in the general college population.[1] It

[1]The major blue-collar group that is under-represented in all four states is the semi- and unskilled class. This may be due to the fact that the awards do not cover general living expenses, an expense that this class may not be able to meet. It may also be caused by the students not being accepted at a college.

TABLE 3

OCCUPATION OF RECIPIENT'S FATHER COMPARED BY PROGRAM TO STATE CENSUS AND THREE NATIONAL SURVEYS

(percentage)

	California		New Jersey			New York			National Surveys		
Father's Occupation	Schol.	State Census[a]	Schol.	State Census[a]	TAG	State Census[a]	SIA	State Census[a]	U.S. Census[b]	ACE Norms[c]	ACT Norms[d]
Professional	24.7	17.4	11.1	16.1	10.1	16.1	19.2	16.7	14.4	18.0	15.0
Managerial & Office	6.3	7.5	2.7	7.8	2.9	7.8	7.7	7.4	9.7	–	9.7
Clerical	4.9	19.8	3.3	19.5	2.9	19.5	4.2	22.4	17.6	30.0	4.0
Sales	11.4	8.0	4.4	7.7	5.4	7.7	7.4	7.5	6.6	–	6.0
Personal Services	1.8	9.2	0.4	7.2	1.4	7.2	1.1	8.9	–	e	–
Protective Services	8.4	2.2	3.1	3.3	3.4	3.3	4.8	1.9	–	1.8	–
Small Business Owner	5.7	2.4	6.4	1.2	8.0	1.2	6.8	1.6	e	5.9	12.0
Skilled	24.7	12.9	29.1	13.7	26.4	13.7	31.7	23.6	13.1	12.4	19.0
Semi- & Unskilled	9.8	20.6	13.6	23.5	12.9	23.5	14.0	11.0	24.9	11.3	18.0
Other[f]	2.3	–	25.8	–	26.6	–	3.0	–	–	–	–

NOTE: Father's occupation data from the Pennsylvania State Scholarship Program was not available.

[a]U.S. Bureau of the Census, *General Social and Economic Characteristics, 1970 Census* (Washington, D.C.: U.S. Government Printing Office, 1971). Percentage of work force in the state.

[b]U.S. Bureau of the Census, *Statistical Abstract*, p. 230.

[c]American Council on Education, *The American Freshman*, p. 34.

[d]McMahon and Wagner, *A Study of the College Investment Decision*, p. 25.

[e]Data not available.

[f]Other includes disabled, retired, deceased, welfare, separated, emancipated student, and unknown.

TABLE 4

FAMILY INCOME OF AID RECIPIENTS COMPARED TO FOUR NATIONAL SURVEYS
(percentage)

	Aid Programs					Surveys			
		New Jersey				1970[a]	ACE[b]	CSS[c]	ACT[d]
Family Income	Calif.	Schol.	TAG	Penna.	New York	Census	Norms	Norms	Norms
0-3,999	5.5	2.9	9.7	7.4	5.5	14.0	8.0	–	–
4,000-9,999	36.0	49.3	43.1	41.2	29.9	37.0	24.7	39.0	54.6
10,000-14,000	42.4	42.0	38.3	45.3	35.5	26.8	30.3	30.3	25.0
15,000-19,999	13.4	5.5	8.1	5.8	20.0	–	14.8	14.0	–
20,000+	2.7	0.2	0.6	0.2	9.3	22.3	22.3	15.0	13.5
Mean Income	10,462	9,775	9,536	9,830	11,910				
State Median Income	10,732	11,407		9,558	10,617				

[a]U.S. Bureau of the Census, *Statistical Abstracts of the United States*, p. 322, Table 523.

[b]American Council on Education, *The American Freshman*, p. 35.

[c]Elizabeth W. Haven and Dwight H. Horch, *How College Students Finance Their Education: A National Survey of the Educational Interests, Aspirations, and Finances of College Sophomores 1969-70*, p. 8.

[d]McMahon and Wagner, *A Study of the College Investment Decision*, p. 6.

can be concluded that these programs do reach the lower occupational level student.

The second indicator of SES is the student's family income. Because of the various income level breakdowns used in other studies, the convenient demarcation point for examining family income is the $10,000 level (see Table 4). According to the 1971 census, 50 percent of the general population earned less than $10,285. According to the ACE 1972 freshman norms, 32.7 percent of the students attending colleges come from families earning less than this amount. Four out of five programs surveyed give greater than 40 percent of their awards to students below the $10,000 income level. The one state that grants less than 40 percent of its awards to students from this income level is New York, whose scholar incentive award program grants aid to all applicants.

When comparing the mean family income of aid recipients to the median family income of the entire state population, it can be seen that recipients' mean family income is nearly identical to the state's general population. A more accurate way of making this type of comparison is to compare the median income for families whose head of household is between 45 and 55 years old, the age level at which most families have their children in college. It is also at this age level that families are earning their greatest income and, therefore, can afford the greatest expenditures. Nationally, families whose male head of household is between the ages of 45 and 55 have a median income of $12,576 (U. S. Bureau of Census 1972b, p. 326), a figure considerably higher than the mean income of recipients' families. Therefore, it can again be concluded that state scholarship and grant programs are aiding students from the lower SES level.

Awards Received by Income Level. Another way to see if scholarship and grant programs are furthering the goal of equal educational opportunity is to review the awards received by income level. Due to the differences between the amount of aid awarded in each program, the actual mean income level is not as important an indicator as the difference between levels. Examining the amount of the mean aid awarded at the three income levels of (1) less than $10,000, (2) $10,000 to $15,000, and (3) more than $15,000, it can be seen that for grant recipients there is a dramatic decrease in the awards in the $10,000 to $15,000 level (see Table 5). This is not the case for the scholarship programs, which show very little variance by income level.

TABLE 5

AVERAGE SCHOLARSHIP/GRANT OF RECIPIENTS BY ANNUAL FAMILY INCOME (dollars)

Annual Family Income	Calif.	New Jersey		Penna.	New York
		Schol.	TAG		
2,000	1007	375*	1000*	898	393
2,000-2,999	1122	350*	906	898	371
3,000-3,999	1178	460	965	901	400
4,000-5,999	988	600	894	929	287
6,000-7,999	924	548	796	908	302
8,000-9,999	893	501	713	751	272
10,000-14,999	879	527	590	481	220
15,000-19,999	1025	505	504	460	152
20,000+	994	500*	700*	844	164

*$n < 8$.

For the grant programs, students from the less than $10,000 income level tend to receive up to 100 percent more aid than those from the $10,000 to $15,000 level. Since the awards only cover tuition, and sometimes fees, students attending a public institution, such as a community college, will receive less aid than students attending a private university. Therefore it is necessary to also look at the family-generated aid plus state aid received by a student.

Total Amount of Aid from Parents and Aid Program. For equal educational opportunity to be achieved, student aid must not benefit disproportionately one income group over another. Since student aid is designated to supplement and not to be a substitute for parental aid, one way to judge the fairness of an aid program is to compare the total support students receive from both the aid programs and their parents by income level. In the five aid programs surveyed, recipients from one income level did not appear to be at a significant advantage over other income levels (see Table 6). The total amount received would naturally vary according to the amount awarded and the tuition of the school attended, but within each program there was considerable consistency.

It should be noted here that this apparent achievement of equal educational opportunity is only valid if the parental aid received by nonaid recipients is at the same level as the amount obtained by the recipients from both parents and aid programs. While this study did

TABLE 6

AMOUNT OF FINANCIAL SUPPORT RECEIVED BY RECIPIENTS FROM SCHOLARSHIP/GRANT AND PARENT ACCORDING TO FAMILY INCOME LEVEL
(dollars)

	Amount of Financial Support				
		New Jersey			
Family Income Level	Calif.	Schol.	TAG	Penna.	New York
2,000	1213	875*	1000	1223	557
2,000-2,999	1122	383*	1004	1169	419
3,000-3,999	1253	460	1205	926	552
4,000-5,999	1182	900	1098	1098	689
6,000-7,999	1151	856	1100	1103	589
8,000-9,999	1321	906	1305	1104	594
10,000-14,999	1470	970	1412	1065	842
15,000-19,999	2000	1101	1521	1006	895
20,000+	2382*	1800*	1250	2100*	1912

*$n < 8$.

not survey nonrecipients, there are indicators that parental support of recipients does not equal the scholarship and grant plus parental aid figure.

Conclusion: Scholarship/Grant Aid Does Promote Equal Educational Opportunity. Comparison of other selected demographic descriptors of aid recipients with national norms also indicates that scholarship/grant aid tends to promote equal educational opportunity. The most significant of these demographic descriptors is the percentage of recipients who are female. The responses from all five programs show a much higher percentage of female award recipients than the percentage of females attending college as a whole. The greatest differences are in the California Scholarship Program and the New Jersey Scholarship Program. Since both of these programs have academic requirements and since females generally have higher high school grade-point averages (American Council on Education 1972, pp. 20; 28), it is not surprising to find more academic aid being awarded to females than males. However, this trend is also found in the grant aid programs. These data are important in light of the current pressure for equal educational opportunity for women and in respect to the claims of many women activist groups who have stated that women are not receiving their fair share of student aid funds. At least in the scholarship and grant programs

surveyed, a greater percentage of women than are represented in the general college population received aid.

Choice

The second condition that must be fulfilled in order to achieve true equal educational opportunity is that of student choice. There are several indicators of student choice.

Ability to Attend First Choice School. First is the student's perceived ability to attend the institution of his first choice; i.e., scholarships and grant aid should help a student attend an institution that he feels will best fit his educational need. Our data show that 68.6 to 88.6 percent of the recipients surveyed were able to attend their first choice school. This does not necessarily indicate that aid, by itself, is the reason a student is able to attend his first choice school; however, it does indicate that the recipients are able to take grant money to their first choice institution. So, while these data do not indicate a relationship between aid and attendance at the first choice school, they do indicate that the majority of the students who receive aid are not prevented from attending their first choice school.

It is interesting to note that of students who indicated they were not attending their first choice school, 40 percent gave other than financial reasons for this situation. While this percentage varies according to program, it can be safely stated that only one-sixth or less of aid recipients surveyed were unable to attend their first choice school because of financial reasons.

Institutions Attended. A second indicator used to determine whether scholarship and grant aid affects student choice is to examine the institutions that recipients were able to attend. Table 7 shows the percentage of students attending postsecondary institutions according to control and level. With the exception of Pennsylvania, a larger percentage of aid recipients attend private institutions than the percentage of first-time enrollment in private institutions in the state. This is particularly true of the higher-aid-per-student programs and of those programs especially designed to encourage attendance at private institutions. In the Pennsylvania program, which is not specifically designed to help students attend private institutions, the attendance pattern of public and private institutions is almost identical with the state norms.

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TABLE 7

TYPE OF INSTITUTION ATTENDED BY RECIPIENTS BY LEVEL AND CONTROL AS COMPARED TO STATE NORMS (percentage)

Level and Control of Institution	California		New Jersey				Penna.		New York	
	Sch.	State Norm	Sch.	State Norm	TAG	State Norm	Sch.	State Norm	SIA	State Norm
All Levels										
Private	41.7	14.1	43.1	30.4	97.5	30.4	40.9	44.7	35.5	34.3
Public	58.3	35.9	56.9	69.6	2.5	69.6	59.1	55.3	64.5	65.7
University										
Private	23.8	3.8	15.5	6.2	39.4	6.2	10.0	9.5	11.6	13.2
Public	52.8	11.6	18.6	14.4	10.5	14.4	30.9	21.6	9.8	2.8
4-5-Year Institution										
Private	17.8	10.0	24.8	9.2	51.4	19.2	29.7	34.1	18.0	19.6
Public	5.5	14.0	31.0	28.0	1.7	28.0	21.6	19.1	12.8	22.9
2-Year Institution										
Private	0.1	0.2	0.9	4.4	6.7	4.4	1.4	3.1	2.8	1.4
Public	0.0	60.3	7.1	27.1	0.6	27.1	5.1	14.6	47.4	40.0

NOTE: State norms are for first-time, full-time, degree credit enrollment. George H. Wade, *Fall Enrollment in Higher Education 1971* (Washington, D.C.: U.S. Government Printing Office, 1972), Table 17 and 17G,H,I,J,L,M,N, pp. 352-421.

However, Pennsylvania's state-supported institutions are among the most expensive state institutions in the country, which means the tuition differences between public and private institutions are far less pronounced. (The public to private college tuition ratio is about 2.2 to 1 in Pennsylvania compared to a ration of 4 or 5 to 1 nationally.)

When looking at an attendance pattern of recipients according to level of institution, aid recipients attend universities and four-year institutions in much greater numbers than do all students considered totally; however, because of the low-tuition cost at most two-year institutions, it may not be completely appropriate to make this type of comparison. For example, California, which has a tuition-free community college system, awards no aid to students attending public two-year schools. In the other programs, aid recipients who attend two-year schools receive much smaller grants, since tuition charges are lower than at four-year institutions.

These data demonstrate that aid recipients are generally able to attend more expensive institutions or at least equal the attendance patterns of the state college norms. This indicates that programs, at a minimum, allow recipients to have the same college attendance pat-

terns as compared to all college students; in some programs students are able to attend institutions that are considered to be of a higher level (four-year versus two-year) and more expensive (private versus public).

Other indications of choice—the ability of a student to attend an institution out-of-state and the ability of a student to live away from home while attending college—also indicate that student aid programs do contribute to student choice.

Stimulating the Educational Marketplace

In addition to promoting equal educational opportunity through access and choice, direct grants to students are adduced by state and federal governments as worthy of support because they stimulate the educational marketplace. The final concern of this study sought to determine the extent to which such stimulation actually takes place.

One indication of whether scholarship and grant aid contributes to the marketplace dynamic has already been discussed. This is the ability of the student to take his aid funds to the institution that he perceives to offer him the best education. It has been demonstrated that aid recipients are able for the most part to attend their first choice school. While this study in no way measured the accuracy of student choice, the data do suggest that under the current exchange of information concerning what institutions have to offer, students are allowed to take their aid money to the institution they perceive best fitting their needs.

Another indication of the workings of the academic marketplace is the extent to which the consumer (the student) will act as an economically rational person. In other words, to what extent does a student economically appraise the potential of his educational resources? Table 8 shows the average recipient expenses as compared with the average student expenses at a postsecondary institution in 1973–74. From these data it can be seen that the average educational expenses of aid recipients very closely resemble the national norm. While the expenditures for tuition and fees tend to be slightly higher, other expenses reported are lower and the total expenses for all parties are nearly the same.

TABLE 8

AVERAGE RECIPIENT EXPENSES COMPARED TO CSS AID APPLICANT NORMS (dollars)

	Scholarship/Grant Programs					CSS Norms[a]	
		New Jersey					
Expenses	Calif.	Scholar.	TAG	Penns.	New York	Commuters	Residents
Tuition and Fees	1,183	1,256	1,840	1,308	1,086	900[b]	1,130[b]
Room & Board	847	661	525	615	516	520	963
Books & Supplies	170	144	146	141	150		
Travel	140	154	156	138	151		
Other Expenses	239	203	216	268	300	645	505
Total Expenses[c]	2,585	2,411	2,879	2,457	2,198	2,057	2,601

[a]James B. Allan and Elizabeth W. Suchar, *Student Expenses at Postsecondary Institutions 1973-74* (New York: College Entrance Examination Board, 1973), p. vii.

[b]Includes books and supplies.

[c]The entries in this row are the mean of the total expenses, not the sum of the individual means in the columns.

Educational Resources Available. Keeping in mind the recipients' educational expenditures, a clearer picture of the economic rationality of these students appears by examining recipients' educational resources. The single largest source of funds for all aid recipients was the state scholarship and grant awards, followed by student-generated resources and parental aid. These three categories equaled 67 percent of the recipients' educational resources. Conversely, 33 percent of the students' financial resources had to come from sources outside the family and state scholarship programs (see Table 9).

When the student was asked how he would finance his education if he had not received a state scholarship, more than half of the students who would continue without aid indicated that loans and work, followed closely by increased family help, would be the most probable sources of additional funding. While loans and work may be reasonable sources of additional funds, expecting additional family help may be unrealistic. At least in theory, administrators of these scholarship programs already had established the maximum amounts families can contribute. Hence a student indicating that he would receive more financial help from his family may be indulging in wishful thinking.

Number of Students Required to Attend Less Expensive School. Another indication of the recipients' willingness to act in an eco-

nomically rational manner, i.e., selecting an institution that will give them the best education for the money available, is the percentage of students who indicated that without scholarship and grant aid they would select a less expensive school. If one eliminates the responses of the California scholarship recipients, whose responses are biased by the California free-tuition community college system, less than 14 percent of those continuing indicated that a less expensive school was a realistic alternative. This would indicate that students may not be as economically rational as many of the proponents of student aid would believe. A further indication of this is seen in the responses of students who checked the "other" category. As one student responded, "The Lord will provide."

Changes in Students' Attendance Patterns

There are three areas of consideration when examining the larger issue involved in this study, the impact of scholarship and grant aid on student college attendance patterns: (1) Are recipients able to attend institutions similar to those attended by nonrecipients?

TABLE 9

FINANCIAL RESOURCES OF RECIPIENTS COMPARED TO CSS NORMS (dollars)

	Scholarship/Grant Programs					
		New Jersey				CSS
Financial Resources	Calif.	Schol.	TAG	Penns.	N.Y.	Norms[a]
Parents	527	397	585	417	623	1099
Student Savings	157	148	165	105	291	–
Term-Time Work	88	76	118	71	152	265
Work/Study	59	58	65	54	–	107
Summer Work	194	265	234	279	–	573
State Scholarship	928	524	704	665	203	78
Other Scholarship or Grant	260	391	295	233	144	62
Guaranteed Loans	70	178	298	281	286	83
Other Loans	168	270	203	159	154	42
Other	117	108	220	206	314	53
Total Resources[b]	2,585	2,411	2,879	2,457	2,198	2,362

[a]Haven and Horch, *How College Students Finance*, p. 12.

[b]The entries in this row are the mean of the total resources, not the sum of the individual means in the columns.

TABLE 10

EFFECT OF SCHOLARSHIP/GRANT AID ON RECIPIENTS' ATTENDANCE PATTERNS BY INSTITUTIONAL CONTROL
(number of students)

Effect on Attendance Patterns	Calif.	New Jersey		Penna.	N.Y.
		Schol.	TAG		
1. Private attendees who would not have attended college without aid.	108	112	172	84	70
2. Public attendees who would not have attended college without aid.	137	104	4	115	144
3. Private attendees who would have attended public without aid.	185	36	35	14	33
4. Public attendees who would have attended private without aid.	5	3	1	0	4
5. Total number recipients whose attendance was altered.	435	255	212	213	251

This question of equal access has already been discussed in this paper; (2) Are attendance patterns of aid recipients significantly altered by receiving aid? This is a question of whether scholarship and grant aid is acting as a stimulus in the educational marketplace. It is also a question of funding. In other words, do certain institutions tend to benefit by a change in student attendance patterns over other institutions because of increased scholarship and grant aid? (3) To what degree are certain types of institutions, i.e., the private sector, benefiting from the increased amount of funds being channeled into scholarship and grant aid? By comparing the responses of aid recipients to the control, level, and size of the institution attended with aid with the type of institutions to be attended without aid, it is possible to see what impact aid had on the student attendance patterns.

Table 10 shows changes in attendance flow by institutional control. First are those students attending private institutions (line 1) and public institutions (line 2) who would have been unable to attend college without aid. (The reader will recall that nearly 50 percent of all aid recipients indicated that they felt they would not have been able to attend any college if they had not received aid.) Next are the number of students who are in one type of institution with aid but

would have attended another type of institution if they had received no aid (lines 3 and 4). The data here indicate that scholarships and grants help these students attend a type of institution they would not have attended without aid, i.e., they would have been forced to attend another type of institution. For example, in the California scholarship program, 185 students who were attending private institutions perceived they would be forced to attend a public institution if it were not for the aid. From these data it is possible to calculate the actual attendance gain at a private or public instituion caused by scholarship and grant aid. For example, the actual attendance gain at private institutions is derived by (a) adding the number of students who would have attended a private institution but who would not attend any college without aid [line 1] to (b) the students who attended private institutions but would have attended public institutions without aid [line 3] less (c) those recipients who indicated that aid would have induced them to attend a public institution over a private institution [line 4].

Table 11 shows the effect of scholarship and grant aid on the recipients' attendance by institutional control, level, and size. These data indicate that student aid permits a considerable number of students to attend private institutions who would have been unable to do so without this aid. As far as the effect of student aid on public institutions is concerned, student aid also helps many students attend pub-

TABLE 11

ACTUAL ATTENDANCE GAINS DUE TO SCHOLARSHIP/GRANT AID BY INSTITUTIONAL CONTROL, LEVEL, AND SIZE
(percentage of total awards)

Institutional Characteristics	Calif.	New Jersey		Penna.	New York
		Schol.	TAG		
Control					
Private	35.0	32.0	57.2	22.7	14.7
Public	−5.2	15.2	−8.3	23.3	17.0
Level					
University	35.0	15.9	16.3	20.6	16.3
4-Year	16.1	28.3	28.6	22.2	8.0
2-Year	−21.4	2.2	3.9	5.1	16.2
Size					
2500	19.5	29.1	26.1	20.6	10.5
2500-9999	10.8	9.7	17.4	17.4	15.2

lic institutions who would not ordinarily do so; however, in two programs the aid had a negative effect on public institution attendance. This negative flow is not entirely a surprise, since these two programs, the New Jersey Tuition Aid Grant Program and the California Scholarship Program, are purposely designed to induce students to attend private institutions.

The Pennsylvania program has very similar effects for both private and public institutions. These patterns seem to indicate that with a relatively small public/private tuition gap and with a balanced aid program that does not favor private institutions, both public and private institutions would benefit by nearly equal increases in attendance from a student aid program. Since there are less than one-fourth as many students in the private sector as in the public sector, the impact of this attendance change due to scholarship and grant aid on private institutions is considerably greater than for public institutions.

A clear-cut pattern is detected when the same type of analysis is used in examining student attendance patterns according to the level of institutions. In the California program, for which maximum awards are based on the type and level of institution attended, the university gains enrollment and the free-tuition community college loses enrollment. In the New Jersey and Pennsylvania programs, all levels of institutions gain from student aid, but the four-year college appears to have the highest percentage gain. For the recipients of New York aid, the program with the lowest mean grant per student, the community college benefits more under the actual gain calculations. The most significant conclusion from these attendance figures is that community colleges, while gaining slightly from student aid programs, gain considerably fewer new students than the other institutional levels. This suggests that many students perceive community colleges as a financial as well as an educational alternative; but, given their choice, they would prefer to attend a four-year institution or university.

It has been hypothesized that student aid would benefit the financially distressed schools, i.e., the small private institutions, by stimulating enrollments. Looking at the size of the institution, it appears that the smaller institutions do, indeed, have a slight edge over the large institutions in actual gain. Since the smaller institutions are having the most financial difficulties it appears that student aid is a viable mechanism to channel funds into this deprived sector.

5/SUMMARY

Because of the recent increased national emphasis on post-secondary scholarship and grant programs, an inquiry into the validity of the basic assumptions underlying student grant programs constitutes an important task. In many cases these assumptions have been perpetuated merely because they supported a particular viewpoint or value system, not because they were supported by research data.

There are four basic assumptions made by the advocates of direct aid to students. First, scholarship and grant aid is seen as the most equitable and efficient method of promoting *equal educational opportunity.* Second, *the dynamics of the competitive marketplace* are assumed to be enhanced by putting funds into the hands of students. Third, by reducing the tuition differential between the private sector and the public sector, *private institutions will gain enrollment.* Fourth, institutions *will become* more effectively *responsive to the student's educational needs* because portable scholarships and grants will increase the economic power of the student.

This study was not designed to measure the latter three assumptions—the increasing responsiveness of institutions, the operation of the marketplace theory, or the effect that student aid has on the demand for higher education (although it did examine certain market related elements, e.g., student economic decision making). This study was developed to measure the perceptions of aid recipients of the impact that aid had on equality of educational opportunity, i.e. their access to and choice of institutions.

Major Conclusions

Aid Promotes Equal Educational Opportunity. The analysis of the data indicates that scholarship and grant aid do promote equal educational opportunity. Aid recipients appear to have equal access and reasonable choice. The high percentage of students who indicated they were able to attend their first choice school supports the contention that student aid tends to allow reasonable choice and contributes to the dynamics of the educational marketplace by allowing a student to go to an institution perceived capable of giving the best education.

However, while the marketplace is stimulated, several of the responses of the recipients indicate that their decisions are not always made in an economically rational manner.

Private Institutions Are Supported. The analysis of student patterns also supports the assumption that with equalization of public-private tuition levels through the aid grants, students will favor private institutions in larger numbers. The gains discussed here demonstrate their significance when generalized for all state scholarship and grant programs. In 1972-73, a total of 652,420 awards were made through the state scholarship and grant programs (Boyd 1973). Taking the actual mean gain as a percentage of the total awards for the five programs studied, the gain in the private sector is 31.8 percent. Generalizing from this to the total awards made, this means that 207,469 students are attending private institutions who would not be doing so without aid. These students comprise 9.7 percent of the national total student population at private institutions.

It has been estimated that the Basic Educational Opportunity Grant Program, when fully funded, will induce some 500,000 to 1,000,000 additional students to attend college (Carnegie Commission 1973a, p. 41). If aid recipients of the BOG program respond as did the recipients of the programs surveyed, 318,000 additional students will enroll in the private sector. The BOG program would also encourage over 200,000 new students to attend the small institutions, i.e., those with enrollment of fewer than 2,500 students.

The impact of state scholarship and grant programs is clearly demonstrated when the attendance of recipients is translated into monetary benefits derived by the various sectors. For the private sector, the estimated increased available funds due to state aid programs is more than $132 million; for the small school sector, more than $65 million. These amounts are only a small portion of the funds flowing into these sectors because of the aid programs: due to the additional money students spend beyond their aid funds, the total amount is two or three times greater.

Findings Challenge Assumptions of Financing Reports

Several findings in this study challenge some of the assumptions made by the most recent reports on financing higher education. For

example, the Committee for Economic Development recently stated that families and students pay nearly 57 percent of all costs associated with undergraduate education, but that the greater part of this expenditure is for food, housing, clothing, and books, with only about 46 percent of the student's total expenditures going for instructional expenses (1973, p. 63). Our study indicates that students spend between 52 and 69 percent of their total funds on tuition, fees, books, and supplies.

Students also report that parents contribute between 17 and 28 percent of their total resources and that only between 55 and 70 percent of the students receive any parental aid. In addition, less than 50 percent of the students indicate that part of their financial resources are derived from summer work, a figure which questions the assumption of most financial aid officers that students should derive between $400 and $600 each summer for the following year's educational costs (Hearings Before the Subcommittee on Education 1973).

Three Major Failings of State Scholarship Programs

1. Lack of Consideration of All Education-Related Expenses. The data from this study point out several major failings of most state scholarship programs. The first is the failure to take into consideration all education-related expenses, both indirect and direct, incurred by students. Most student aid programs provide for only tuition and fees and do not cover living expenses, travel expenses, and foregone income. This especially affects the very poor who cannot afford to have a child live at home unless he helps to support the family. For poor families, an aid offer that covers just tuition fees increases their general dissatisfaction by raising an unfulfillable expectation.

It should be noted that students from financially disadvantaged families have more difficulty in qualifying for loans from the private financial sector. Lending institutions are very reluctant to grant loans to students from poor families because of the greater likelihood that they will fail to complete their schooling or will default. While state and federal guaranteed loan programs go a long way toward alleviating this condition, scholarship and grant programs must take into consideration that the financial marketplace still does not provide enough loan funds to make up the difference that now exists.

2. Unrealistic Expectations Regarding Student Contributions to Educational Costs. A second failing is the unrealistic expectation regarding the ability of the student to contribute to his educational costs. This is especially true of the summer and school-time earnings that the student is expected to provide. Financially disadvantaged families tend to come from areas where extra work is not available or provides only substandard pay. This is especially true in the urban ghetto areas where part-time and summer work is almost nonexistent. Poor students also tend to have lower grades and have a need to study more to remain in school. The expectation that so much time should be used to earn extra income to help with the educational expenses increases the likelihood that the student will not succeed academically.

3. Failure to Adjust Income Levels Indicating Disadvantagement. The third failure of the general requirements of the state student aid programs is the failure to adjust income levels that are considered indicative of the financially disadvantaged. There are two factors to be considered—the real purchasing power of the dollar and the increased standard of living in society in general. Between 1966 and 1974, increased taxes and inflation have decreased the purchasing power of the dollar by more than 50 percent ("The Vanishing Pay Raise" 1974). This means that a family with an income of $5,000 in 1966 would have to earn $7,500 in 1974 just to retain the same standard of living. Further, remaining at the same standard of living is acceptable only if everyone else's standard of living remains the same. If the standard of living for society as a whole increases, to stand still is to fall behind. Most aid programs have not adjusted the income levels they consider "disadvantaged" in light of these economic changes. As a result, more and more needy students do not qualify for aid.

Conclusion

The use of scholarship and grant aid as a mode of financing higher education is on the increase. This study has investigated some of the implications of the trend for the promotion of equal educational opportunity—defined as equal access and equal choice—and the impact of aid on the dynamics of the educational marketplace. Much more needs to be known before the true impact of such programs as the Basic Opportunity Grants can be determined. For example, there is

need for further research concerning other types of direct student aid, such as loans. Also there is need for longitudinal studies. It is hoped that this study has increased the knowledge base concerning the impact of scholarship and grants on students and that it will encourage further investigation in this area.

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Notes on the Author

Jonathan D. Fife is currently Associate Director of the ERIC Clearinghouse on Higher Education of The George Washington University. In June 1975 he will be awarded the Ed.D. in Higher Education from The Pennsylvania State University. He holds an M.S. in Student Personnel Services from SUNY at Albany and a B.B.A. from the University of Massachusetts at Amherst. Mr. Fife has served as a consultant on student aid to the Governor's Study Commission on the Structure of Governance of Education in Maryland. He has published several articles concerning the effects of student aid.

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